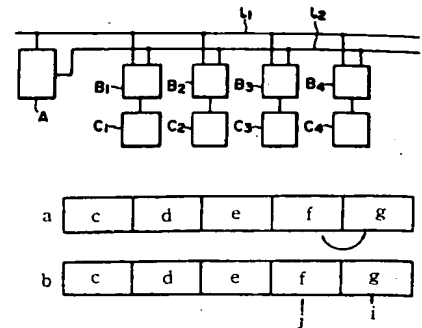


(54) REMOTE CONTROLLER

(11) 57-162590 (A) (43) 6.10.1982 (19) JP
 (21) Appl. No. 56-47501 (22) 31.3.1981
 (71) TOUSHIBA DENZAI K.K. (72) KIYOUJI YAMAZAKI(1)
 (51) Int. Cl.³. H04Q9/00

PURPOSE: To recognize the state of load without varying it, by including a selection signal which indicates (execution) or (nonexecution) for the control of load into the data that is transmitted from a master station.

CONSTITUTION: In case a selection signal for control which is transmitted from a master station A shows (execution), the decision is carried out like conventional whether the coincidence is obtained between each of terminal devices $B_1 \sim B_4$ and the own address. When the coincidence is obtained, loads $C_1 \sim C_4$ are controlled. Then the load state signal corresponding to the control signal is sent back to the station A. While the selection signal shows (nonexecution), the terminals $B_1 \sim B_4$ all discriminate the (nonexecution) mode of control and then decide whether an address signal coincident with the own address exists. The load control signal fed next is neglected even in case the coincidence is obtained with the own address to carry out no load control. Then the load state signal corresponding to the control signal accompanied with the (execution) of control which is precedingly received is sent back to the station A.



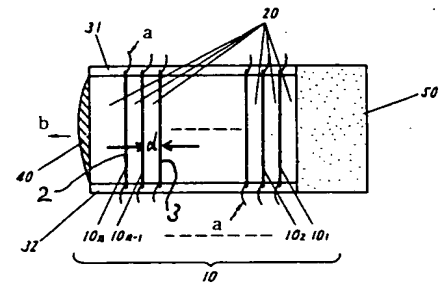
a: execution, b: non execution, c: start signal, d: selection signal, e: address signal, f: control signal, g: load state signal, h: coincidence, i: load state data of preceding execution selection, j: neglect

(54) ULTRASONIC WAVE TRANSDUCER

(11) 57-162591 (A) (43) 6.10.1982 (19) JP
 (21) Appl. No. 56-46816 (22) 30.3.1981
 (71) YOKOGAWA DENKI SEISAKUSHO K.K. (72) YASUTO TAKEUCHI
 (51) Int. Cl.³. H04R1/20, A61B10/00, H04R17/00//G01S7/52

PURPOSE: To increase the piezoelectric constant, by laminating plural sheets of piezoelectric element films made of a polymer group piezoelectric material in parallel to each other via a propagating medium and then performing the coupling of travelling waves.

CONSTITUTION: The polyvinylidene fluoride (PVDF) films $10_1 \sim 10_n$ having electrodes 2 and 3 on both surfaces are laminated via a propagating medium 20 suited for propagation of ultrasonic waves, e.g., the water, a medium having the acoustic characteristics substantially equivalent to water, the silicone rubber, etc. The both ends of a single PVDF film are held 31 and 32 to keep good plane properties. An acoustic lens 40 is attached at the aperture end on the surface of the film 10 in order to obtain the desired directivity to the ultrasonic beam which is radiated from or arrives at the aperture end. At the same time, a sound absorbing packing material 50 is attached on the rear side of the film 10 to realize the resistive termination. The space (d) between films 10 is not necessarily set constant, and the electrical delay between the films is controlled to perform the excitation (transmission) or the synthesization (reception). Thus the piezoelectric constant is increased.



a: terminal lead, b: object region

(54) ECHO PREVENTING LOUDSPEAKING DEVICE

(11) 57-162592 (A) (43) 6.10.1982 (19) JP
 (21) Appl. No. 56-47537 (22) 31.3.1981
 (71) NIPPON DENKI K.K. (72) AKIHIKO TSUKUI(1)
 (51) Int. Cl.³. H04R3/02

PURPOSE: To prevent the echo, by always adding the reference signal having a certain spread of frequency to the driving side of an electro-acoustic transducer to extract the reference signal entered the electroacoustic transducer and then detecting the degree of acoustic coupling to erase the reference signal entered the transducer.

CONSTITUTION: The aural signal supplied through a telephone receiver terminal 7 is amplified 8 and 9 to be delivered through a speaker 2. The voice, etc. supplied through a microphone 1 is delivered through a transmitter terminal 6 via amplifiers 4 and 5. A reference signal generator 10 produces the signal BG music, etc. having a certain frequency spread to add it to the amplifier at all times and then to deliver it through the speaker 2 in the form of a sound wave. This sound enters the microphone 1 to be extracted by a detector 11, and the amplitude and the phase are compared with the reference signal 10 through a comparator 12. As a result, a tap gain controller 14 is controlled to control the tap output signal of a delay circuit 13. Thus the signal corresponding to the entering characteristics is erased. As a result, the coupling state is detected to erase the entered signal although the environment varies.

